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BACHELOR OF TECHNOLOGY (C.B.C.S.) (2014 COURSE)
B.Tech.Sem - VII ELECTRONIC : WINTER- 2022
SUBJECT : COMPUTER NETWORKS

Day : Wednesday

Time : 02:30 PM-05:30 PM

Date : 07-12-2022

W-13393-2022

Max. Marks : 60

N.B.

- 1) All questions are **COMPULSORY**.
 - 2) Figures to the right indicate **FULL** marks.
 - 3) Draw neat and labelled diagram **WHEREVER** necessary.
 - 4) Assume suitable data, if necessary.
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Q.1 Draw a diagram explaining different networking devices along with the OSI layer at which it is working. Explain any two layers in detail. **(10)**

OR

Q.1 Define the following terms and discuss their properties **(10)**

- a) LAN
- b) MAN
- c) WAN

Q.2 a) Explain the different operating bands of satellite communication. **(10)**
b) Compare guided and unguided media.

OR

Q.2 a) Describe the EIA 232-D standard. **(10)**
b) Explain bridge, router, switch with examples.

Q.3 Draw IEEE 802.11 MAC layer frame. Explain following fields with respect to same. **(10)**

OR

Q.3 Compare and contrast HDLC with PPP **(10)**

Q.4 Explain link state routing algorithm with example. **(10)**

OR

Q.4 Write short notes on: **(10)**
i) Choke packets
ii) RSVP

Q.5 a) Draw ICMP header. Explain the fields. **(10)**
b) How proxy ARP is used to create sub netting, explain with examples.

OR

Q.5 Explain working of DNS protocol w.r.t. following: **(10)**
a) Mapping of domain name to IP address with diagram
b) Generic Domains
c) Country Domains

Q.6 Explain message authentication using a symmetric cipher with diagram. **(10)**

OR

Q.6 a) Explain with diagram IP Securing transport mode. **(10)**
b) Explain digital signatures with diagram.

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